

General Offices/3M

3M Center
St. Paul, Minnesota 55144-1000
(612) 733-1110



MATERIAL SAFETY DATA SHEET

DIVISION: ADHESIVES, COATINGS AND SEALERS
TRADE NAME: 3M Adhesive EC-4927
3M I.D. NUMBER: 62-4927-6540-9 62-4927-8505-0
ISSUED: MARCH 26, 1986
SUPERSEDES: SEPTEMBER 1, 1984
DOCUMENT: 10-5279-4

1. INGREDIENTS	C.A.S. NO.	PERCENT	EXPOSURE LIMITS
methylene chloride	75-09-2	90.0	100 ppm 1
toluene	108-88-3	0.5	100 ppm 1
ethyl acetate	141-78-6	0.5	400 ppm 1
blend of polyisocyanate prepolymers*	N/A	7.0	N/D 5
*contains <1% free toluene diisocyanate (T.D.I.)	584-84-9		.005 ppm 1
*contains diphenylmethane diisocyanate (M.D.I.)	101-68-8	2.0	.02 ppm 1
pigment and catalyst	N/A	0.1	N/D 5

SOURCE OF EXPOSURE LIMIT DATA:
1. ACGIH Threshold Limit Values
2. Federal OSHA Permissible Exposure Limit
3. 3M Exposure Guidelines
4. Chemical Manufacturer Recommended Guidelines
5. None Established

ABBREVIATIONS:
N/D - Not Determined
N/A - Not Applicable

2. PHYSICAL DATA	
BOILING POINT:	104F (Meth. Chlor.)
VAPOR PRESSURE:	268F 349 mm
VAPOR DENSITY (Air=1):	2.93
EVAPORATION RATE (Ether=1):	1.8
APPEARANCE AND ODOR:	Red to purple liquid -- ether-like odor
SOLUBILITY IN WATER:	Very slight
SP. GRAVITY (Water=1):	1.3
PERCENT VOLATILE:	Approx. 91.0%
VISCOSITY:	20 cps
pH:	N/D



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3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Closed Cup): Non-flam.
FLAMMABLE LIMITS - LEL: 14.8 UEL: 22 @25C

EXTINGUISHING MEDIA:

Non-flammable

SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters should be equipped with self-contained breathing apparatus when fighting fires involving this material.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Overheated, closed containers adjacent to fire could explode due to pressure buildup.

4. REACTIVITY DATA

STABILITY: STABLE

INCOMPATIBILITY - MATERIALS TO AVOID:

Avoid contact with water (liquid and atmospheric), alcohol and amines -- not a hazard.

CONDITIONS TO AVOID: Pressure may build up in sealed drums. Care should be taken when opening. DO NOT USE PUMPS OR PRESSURIZED EQUIPMENT WHICH CONTAIN ALUMINUM OR ZINC (GALVANIZED) PARTS -- MAY CAUSE EXPLOSIVE REACTION.

HAZARDOUS POLYMERIZATION: MAY NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS:

CO, CO₂, HCl and possible trace amounts of chlorine and phosgene when subjected to excessive heat or flame. Thermal decomposition of polyurethane or polyisocyanurate foams at temperatures below their ignition points may generate isocyanate vapors and other irritating volatile products.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Observe precautions in all sections. Ventilate area. Only properly protected personnel should remain in the immediate area. Contain spill and cover with absorbent material such as sawdust or oil absorbent. Place in open top metal container (U.S. Dept. of Transportation approved if material is to be shipped). Remove to well ventilated area and treat with dilute ammonia solution (such as 90% water, 8% concentrated NH₄OH and 2% liquid detergent). Leave ventilated 24 hours. Wash down spill area with dilute ammonia solution to neutralize remaining residue of isocyanate.

RECOMMENDED DISPOSAL:

Commercial incineration with destruction and removal efficiency greater than 99.99% or reclamation is preferred. If incinerated, more than 99% of the hydrogen chloride in exhaust gas should be removed. Otherwise, dispose in accordance with local and current

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U.S. Environmental Protection Agency regulations. Cured product (all solvent evaporated) may be landfilled in accordance with local regulations.

ENVIRONMENTAL DATA:
N/D

6. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with plenty of water for at least 10 minutes and call a physician.

SKIN CONTACT:

Wash thoroughly with soap and water. Launder contaminated clothing before reuse.

INHALATION:

Provide fresh air. Call a physician if breathing is difficult.

IF SWALLOWED:

Do not induce vomiting. Call a physician.

7. PRECAUTIONARY INFORMATION

Use only in areas adequately ventilated with enough air movement to remove vapors and atmospheric concentrations of isocyanates from exceeding current threshold limit values. Until such ventilation can be made available, wear a respirator rated for isocyanate vapors. Avoid prolonged breathing of vapor. Avoid breathing overspray (airborne adhesive particles) during spray application. Use eye protection to avoid eye contact. Use protective clothing and impermeable gloves to avoid skin contact. Wash thoroughly after handling product. Wash contaminated clothing before reuse. Keep container closed when not in use. Keep out of the reach of children. CONTACT WITH ALUMINUM OR ZINC (GALVANIZED) IN A PRESSURIZABLE FLUID SYSTEM MAY RESULT IN EXPLOSION. Avoid vapor contact with open flames, welding arcs or other high temperature sources which can cause vapor decomposition and harmful gases.

NOTE: Vapors from this product can cause corrosive effects on ducts in work areas.

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8. HEALTH HAZARD DATA

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EYE CONTACT: May cause eye irritation.

SKIN CONTACT: Prolonged or repeated contact with the skin will cause dryness and defat the skin. This can lead to infection and dermatitis.

INHALATION: Overexposure to methylene chloride vapors may cause respiratory system irritation and light-headedness. May cause lung, liver, and heart damage. May present special hazard to persons with existing heart disease. Symptoms of overexposure may include headache, dizziness, giddiness, irritability, stupor, numbness or tingling of the extremities and memory loss. Gross acute overexposure could cause unconsciousness and death. Persons with existing unspecific bronchial hyperreactivity or persons with a specific isocyanate hypersensitivity will respond to small isocyanate concentrations at levels below the TLV of 0.02 ppm. Symptoms may be immediate or delayed and include chest tightness, respiratory distress or asthmatic attack. Repeated or extreme overexposure to toluene vapors may cause nervous system damage.

INGESTION: Solvent aspiration into the lungs as a result of vomiting may cause lung damage or death. May cause digestive system irritation with nausea and vomiting, and nervous system impairment.

NOTE: Methylene chloride has been shown to be an animal carcinogen based on animal studies of rats and mice at high levels of exposure. There is no data to show a relationship as a potential human carcinogen.

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The information on this Data Sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. Any use of the product which is not in conformance with this Data Sheet or which involves using the product in combination with any other product or any other process is the responsibility of the user.